## RATIO CALCULATIONS AND SHUTDOWN SUMMARY

# JUNE 2009

### MIDCO I AND II SITES GARY, INDIANA

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Parameter	Units	Midco I Site	Midco II Site	Deep Well Site
HP/UV flow rate	gpm	21 to 37	50.6 to 60	
HP/UV operating lamps	count	2	4	1
UV tube cleaning cycle	hours	2.0	2.0	
Hydrogen peroxide feed	ppm	325	120	
pH, inlet to HP/UV unit	pH units	7.3	7.1	1
Extraction well flow rates as of 6-30-09				1
EW-1	gpm	9.0	2.0	1
EW-2	gpm	9.0	7.0	1
EW-3	gpm	4.0	7,0	1
EW-4	gpm	2.0	6.2	-
EW-5	gpm	4.0	N/A	†
EW-6	gpm	2.0	2.1	1
EW-7	gpm	9.0	1,1	-
MW-3D	gpm	OFF	N/A	-
MW-5D	gpm	OFF	N/A	
MW-6D	gpm	4.0	N/A	-
	- Spin	4.0	14/74	
Extraction well flow rates necessary for capture <sup>2</sup> EW-1				
	gpm	6.4	13.0	
EW-2	gpm	6.4	13.0	
EW-3	gpm	N/A	16.9	
EW-4	gpm	1.0	8.0	
EW-5	gpm	N/A	N/A	
EW-6	gpm	1.7	5,7	
EW-7	gpm	6.4	9.1	
Range of detections from field gas chromatograph				
Methylene chloride	µg/L	< 5.0	N/A	]
Vinyl chloride	μg/L	< 2.0	N/A	
Treatment operating flow rate less tube cleaning	gpm	31.4 to 36.3	49.8 to 59.7	
Total treated water volume <sup>3</sup>	gallons	1,351,331	899,669	2,251,000 •
Design average flow rate <sup>4</sup>	gpm	28.0	50.6	78.6
	davs	30	30	
Month duration and operating time for average monthly flow rate calculation	minutes	43,200	43.200	1
Non-GWETS-related shutdowns (pages 2 & 3)	minutes	1,168	1.127	1
Annulus & pipeline testing shutdowns	minutes	0	0	1
Operating time for average monthly operating flow rate calculation	minutes	42,032	42.073	1
GWETS-related shutdown - scheduled & non-scheduled (see pages 2 and 3)	minutes	275	1.974	1
Operation time excluding all shutdowns	minutes	41,757	40,099	
Average monthly operating flow rate <sup>5</sup>	gpm	32.2	21.4	53.5 •
% average monthly operating flow rate to design average flow rate				
The state of the s	%	114.8%	42.3%	68.1%
Average monthly flow rate <sup>6</sup>	gpm	31.3	20.8	52.1
% average monthly flow rate to design average flow rate	%	111.7%	41.2%	66.3%
Waste materials stored on-site for off-site disposal				
Spent filters	cubic yards	16	4	
Anticipated off-site shipment week of		July 6, 2009	October 5, 2009	
Waste shipments this month		None	None	
Filter eake	cubic yards	N/A	10	
Anticipated off-site shipment week of		N/A	October 5, 2009	
Waste shipments this month		N/A	None	
Other wastes (specify):		None	None	
Anticipated off-site shipment week of		N/A	N/A	

HP/UV = Hydrogen peroxide/ultraviolet light

GWETS = Ground water extraction and treatment system

gpm = Gallons per minute

 $\mu g/L = Micrograms \ per \ liter$ 

N/A = Not applicable

#### Notes:

- <sup>1</sup> HP/UV flow rate is the process water flow rate that goes through the HP/UV.
- <sup>2</sup> Extraction wells EW-3 and EW-5 at the Midco I Site are used for dewatering purposes only.
- <sup>3</sup> Total treated water volume is obtained from the site treated water flow totalizer.
- <sup>4</sup> Design average flow rate is the model-predicted flow rates of 21.0 or 50.6 gpm, respectively for the Midco I and Midco II Sites. The design average flow rates changed on February 24, 2003 from 24.5 to 50.6 gpm for Midco II. The Midco I design average flow rate varies between 21 and 28 gpm, based on dewatering.
- Average monthly operating flow rate is the total treated water volume divided by the operating time excluding all non-GWETS-related shutdowns. This value is different from the HP/UV flow rate because of the flow recycled during the tube cleaning.
- <sup>6</sup> Average monthly flow rate is the totalized volume of treated water divided by the number of minutes for that month.